

Progress report December 2, 2014

Grant Number 7310003

Title: Biomass Reforestation for Boreal Forest

Grantee: Alaska Division of Forestry

Reporting period: August 1 to September 30, 2014

**Deliverables submitted:**

Progress report

Photos from 2014

**Budget:**

Expenditures

Personnel services for field measurement of poplar cuttings in Mat-Su and Delta, including 10 field sites and 2 UAF farms.

Travel for lodging at Kelly's Country Inn Delta Junction, meals per diem, and gas for vehicles.

Matching funding provided to University of Alaska Fairbanks.

**Schedule Status:** We are currently on schedule with updated schedule.

## Percent Completion:

Milestone	Task		Start Date	End Date	Grant Funds	Match Funds	Total Budget	Deliverables	Percent Completed
	1	Select field sites	Dec-13	Mar-13	\$ 533	\$ 533	\$ 1,065	Written agreements for site use	100
	2	Finalize planting design	Jan-13	Mar-13	\$ 256	\$ 256	\$ 511	Planting designs	100
MS 1: AEA accepts site agreements and final planting designs									
	3	Collect and store cuttings	Mar-13	Mar-13	\$ 3,813	\$ 3,813	\$ 7,625		100
	4	Plant cuttings	Jun-13	Sep-13	\$ 11,210	\$ 11,210	\$ 22,419		100
	5	Evaluate plantations Year 1	Nov-13	Dec-13	\$ 2,956	\$ 6,288	\$ 9,244	Year 1 summary report	100
MS 2: AEA accepts Year 1 summary report									
	6	Select and obtain Year 2 cuttings	Mar-14	Jun-14	\$ 4,000	\$ 4,000	\$ 8,000	Year 2 planting plan	100
MS 3: AEA accepts Year 2 planting plan									
	7	Plant and transplant cuttings to Delta site	Jun-14	Jul-14	\$ 3,000	\$ 3,000	\$ 6,000		100
	8	Plant cuttings in rural village	Jun-14	Sep-14	\$ 3,000	\$ 3,000	\$ 6,000		100
	9	Evaluate plantations 2014	Aug-14	Oct-14	\$ 3,500	\$ 3,500	\$ 7,000	Year 2 summary report	100
MS 4: AEA accepts Year 2 summary report									
	10	Evaluate plantations 2015	Aug-15	Oct-15	\$ 3,500	\$ 3,500	\$ 7,000		
	11	Prepare draft project report	Oct-15	Nov-15	\$ 4,000	\$ 4,000	\$ 8,000	Draft report	
	12	Prepare final report	Dec-15	Dec-15	\$ 5,234	\$ 1,902	\$ 7,136	Final project report	
MS 5: AEA accepts final report									
Total					\$ 45,000	\$ 45,000	\$ 90,000		

## **Work Progress:**

### **Task 7:**

Transplanting surviving cuttings from field sites to UAF farm at Palmer occurred in September.

### **Task 8:**

A sample of the 4 principle varieties were shipped to a UAF cooperator in Galena who agreed to plant cuttings. First year report from Galena was that Alberta balsam poplar had best survival.

### **Task 9:**

Field measurements were made at all 12 sites. Measurements occurred in Delta on September 3 and 4, and in Mat-Su on September 17 and 19. A total of 1,867 cuttings were planted at Mat-Su and Delta. Each site is considered one replication for statistical purposes. One site is Mat-Su suffered nearly 100% mortality due to small animal damage. This one site, Willer-Kash #1, was dropped from the analysis because it was different from other sites by being a public firewood cutting area, not a logging site, and herbaceous cover was extremely high. No other site showed any animal damage. Summary of results is as follows:

<u>Variety</u>	<u>Percent survival</u>
Hybrid	85% a
Alberta	73% a
Palmer	39% b
Delta	36% b

A presentation of the project was given to the Forest Stewardship Committee in October.

## **Future work:**

End of summer survival assessment will be conducted in September 2015. Assessment of winter injury and second year survival is needed for publication.

Additional presentations will be given at appropriate venues.

A manuscript will be prepared and submitted to Tree Planters Notes.



Delta site showing “Northwest” hybrid poplar from Alberta, September 2014.



“Northwest” hybrid poplar at Delta site.





Alberta balsam poplar at Mat-Su site.



Alberta balsam poplar at Mat-Su site.





Willer-Kash #1 site where animal damage severely disrupted poplar growth.



Animal damage to poplar cuttings at Willer-Kash #1 site.